SHOP FOX®

WOODSTOCK

INTERNATIONAL

MODEL W1821
ROUTER TABLE ATTACHMENT

OWNER'S MANUAL
(FOR MODELS MANUFACTURED SINCE 3/10)

Phone: (360) 734-3482 · Online Technical Support: tech-support@shopfox.biz

#12866TS   Printed in China

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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USE THE QUICK GUIDE PAGE LABELS TO SEARCH OUT INFORMATION FAST!

INTRODUCTION
Woodstock Technical Support

The Model W1821 has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: **tech-support@shopfox. biz**. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition of this manual, you can download it from **http://www.shopfox.biz**.
If you have comments about this manual, please contact us at:

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The Model W1821 Router Table Attachment mounts to most table saws that have 27" deep tables. This addition to your table saw features a universal router mount, a 20" by 27" precision-ground cast iron table, an extruded aluminum fence, and a starting pin for contour shaping. Included with the W1821 are double-cross $^3/_4$" x $^3/_8$" T-slots, an adjustable support leg, and a $2^1/_2$" dust port.

Specifications

Table Size	20" x 27"
Table T-Slot Size	$^3/_4$" x $^3/_8$"
Fence Board Size (x 2)	$12^1/_2$" x $2^3/_4$"
Number of Table Inserts	2
Table Insert Inside Openings	1", $2^3/_8$"
Table Opening Size	4"
Router Base Thickness Range	$^1/_4$"-$2^1/_4$"
Dust Port Size	$2^1/_2$"

Fits the following Shop Fox Model table saws: W1677, W1703, W1711, W1714, W1725, W1726, W1748, W1817, W1818, W1819, W1820 (may fit additional models as they are released).

NOTICE
The Model W1821 mounts on most table saws that have 27" deep tables. If your table saw does not have mounting holes for the installation of the router table, you will need to drill and tap these holes. Read the entire assembly section before you begin the installation procedure to make sure the W1821 will fit your table saw.

SAFETY

READ MANUAL BEFORE OPERATING MACHINE. FAILURE TO FOLLOW INSTRUCTIONS BELOW WILL RESULT IN PERSONAL INJURY.

⚠DANGER   Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

⚠WARNING   Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

⚠CAUTION   Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.
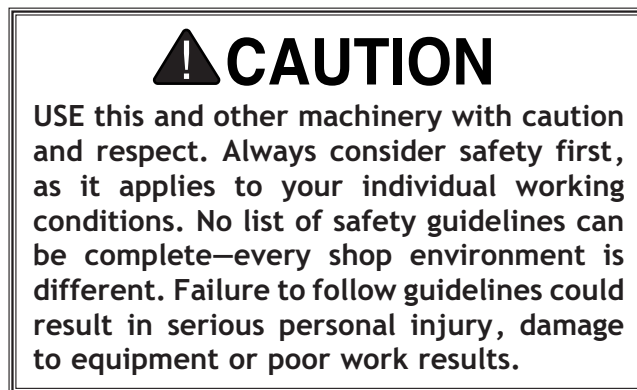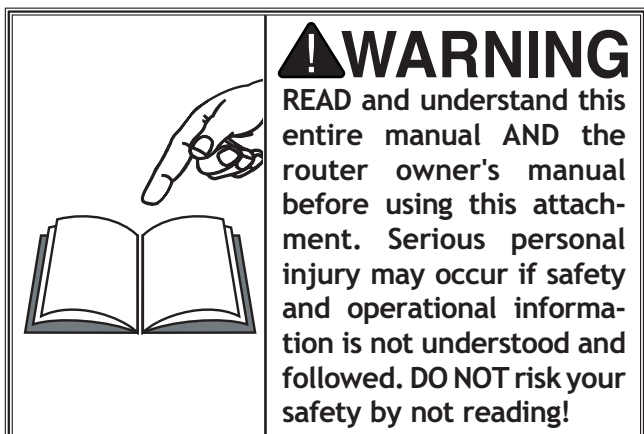
NOTICE   This symbol is used to alert the user to useful information about proper operation of the equipment, and/or a situation that may cause damage to the machinery.

Standard Safety Instructions

1. **READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.

2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.

3. **ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.

4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.

5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.

6. **NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.

9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.

SAFETY

10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power *OFF* and allow all moving parts to come to a complete stop before leaving machine unattended.

11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

12. **KEEP WORK AREA CLEAN AND WELL LIT**. Clutter and dark shadows may cause accidents.

13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.

14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.

15. **MAINTAIN MACHINERY WITH CARE**. Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

17. **REMOVE ADJUSTING KEYS AND WRENCHES**. Make a habit of checking for keys and adjusting wrenches before turning machinery *ON*.

18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.

19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.

20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.

21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.

23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."

24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**

25. **BE AWARE THAT CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Make sure you know the hazards associated with the type of dust you will be exposed to and always wear a respirator approved for that type of dust.

Additional Safety for Router Tables

⚠WARNING

READ and understand this entire manual AND the router owner's manual before using this attachment. Serious personal injury may occur if safety and operational information is not understood and followed. DO NOT risk your safety by not reading!

⚠CAUTION

USE this and other machinery with caution and respect. Always consider safety first, as it applies to your individual working conditions. No list of safety guidelines can be complete—every shop environment is different. Failure to follow guidelines could result in serious personal injury, damage to equipment or poor work results.

SAFETY

1. **AVOIDING AMPUTATION.** Never place hands directly over or in front of the cutter. As one hand approaches the cutter, move it away. Always keep hand at least 6" away from the spinning cutter.

2. **SECURING LEVERS AND KNOBS.** Never operate the router table without first making sure that all lock levers and knobs are tight, and that all fence hardware and guide rails are secure. Otherwise, the workpiece can slip out of alignment during cutting and cause injury from kickback.

3. **PREVENTING WORKPIECE DRAW-IN OR KICKBACK.** Always feed the workpiece against the rotation of the cutter. Never force materials past the router. Let the cutter do the work. Excessive force is likely to result in poor cutting results and will cause kickback conditions that could cause serious personal injury.

4. **APPROPRIATE WORKPIECES.** The danger of kickback and injury is increased when the workpiece has knots, holes, or foreign objects in it. Warped stock should be run through a jointer before you run it through the router table.

5. **BLIND CUTTING.** Keep the cutter on the underside of the workpiece when making blind cuts, which decreases risk of accidental contact with the cutter.

6. **TESTING ROTATION.** With the machine disconnected from power, rotate the router spindle to test any new setup to ensure proper cutter clearance before starting the machine.

7. **CUTTING SUPPORT.** NEVER cut a workpiece without using a fence, jig, or miter. Otherwise, the workpiece can be grabbed by the cutter and pull your hands into the cutter.

8. **WORKPIECE SIZING.** NEVER use a workpiece shorter than six inches without special fixtures or jigs. Otherwise, the workpiece can become trapped between the fence and cutter, which could draw your hands into the spinning cutter.

9. **CUTTER HEIGHT.** Keep any unused portion of the cutter below the table surface, or a workpiece can be grabbed by the cutter causing kickback and serious injury.

10. **USING SAFETY GUARDS.** To prevent amputation or other injuries, NEVER remove any guards or 10 when machine is operating. Fabricate additional guards or jigs for special circumstances. Use an overhead guard if the fence is removed.

11. **TRIPPING HAZARD.** To prevent tripping over the router power cord when operating the table saw, always disconnect it and safely store it out of the way.

SETUP

Unpacking

The Model W1821 has been carefully packaged for safe transportation. If you notice the product has been damaged during shipping, please contact your authorized Shop Fox dealer immediately.
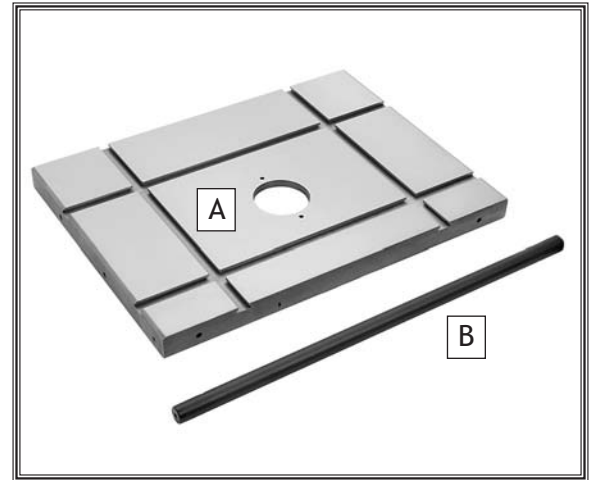

Figure 1. Shipping inventory items A–B.

Inventory

Refer to **Figures 1-3** and the listing below to inventory the contents of the shipping box.

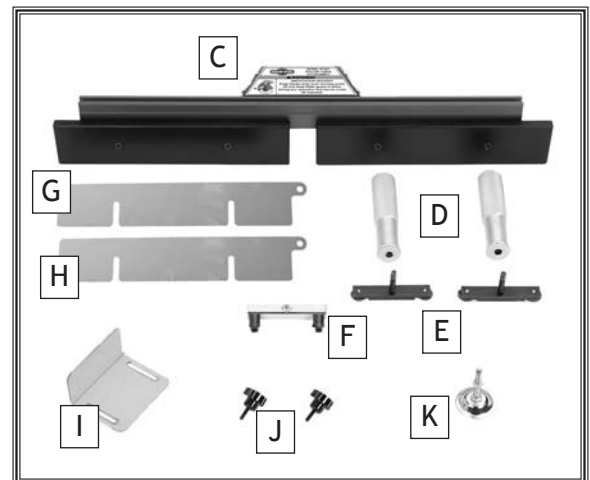If you can't find an item on this list, check the mounting locations or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.
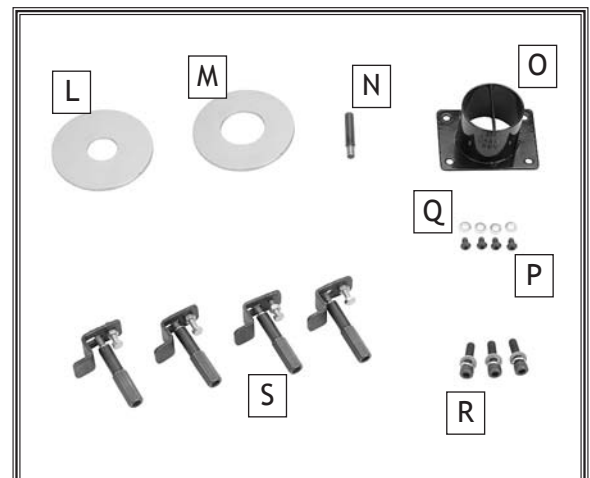
Description	Qty
A. Router Table	1
B. Support Leg	1
C. Fence & Dust Hood	1
D. Knurled Fence Handles	2
E. T-Slot Bars	2
F. Router Guard Bracket Assembly	1
G. Fence Board Shim 1.5mm	1
H. Fence Board Shim 0.7mm	1
I. Plastic Router Guard	1
J. Router Guard Star Knobs	2
K. Support Leg Foot Pad Assembly	1
L. Table Insert 1" ID	1
M. Table Insert $2^3/_8$" ID	1
N. Starting Pin	1
O. Dust Port $2^1/_2$"	1
P. Button Head Cap Screws M6-1 x 10	4
Q. Flat Washers 6mm	4
R. Mounting Screw Assemblies	3
—Cap Screws M8-1.25 x 30	3
—Lock Washers 8mm	3
—Flat Washers 8mm	3
S. Router Hold-Down Assemblies	4

Figure 2. Shipping inventory items C–K.

Figure 3. Shipping inventory items L–S.

Assembly

The Model W1821 mounts on most table saws that have 27" deep tables. If your table saw does not have mounting holes for the installation of the router table, you will need to drill and tap these holes. Also, you may have to modify the fence rails to allow access for the router table T-slots. Read this entire assembly section before you begin the installation procedure below to make sure the W1821 will fit your table saw before making any modifications.

Needed for Assembly	Qty
Another Person	1
Hex Wrench 4mm	1
Hex Wrench 5mm	1
Hex Wrench 6mm	1
Wrench 10mm	1
Wrench 13mm	2
Straightedge (at least 24" long)	1

To assemble and install your router table attachment, do these steps:

1. DISCONNECT THE TABLE SAW FROM POWER!

2. Decide which of the following mounting options best suits your needs:

   — Remove the existing right wing of the saw table and use the existing wing mounting holes to attach the router table.

   — Mount the router table to the right side of the saw table or the existing right-hand wing. In these cases, you will probably need to drill and tap three M8-1.25 holes into the saw table or wing that match those in the router table (see **Figure 4**).

   Tip: *Use the holes in the router table as a template for marking the mounting hole locations on the saw table so that the router table top will mount flush with the top of the saw table.*

3. Thread the foot pad assembly into the bottom of the support leg, as shown in **Figure 5**. For now, do not tighten the jam nut up to the leg so that you can adjust the height of the leg in a later step.

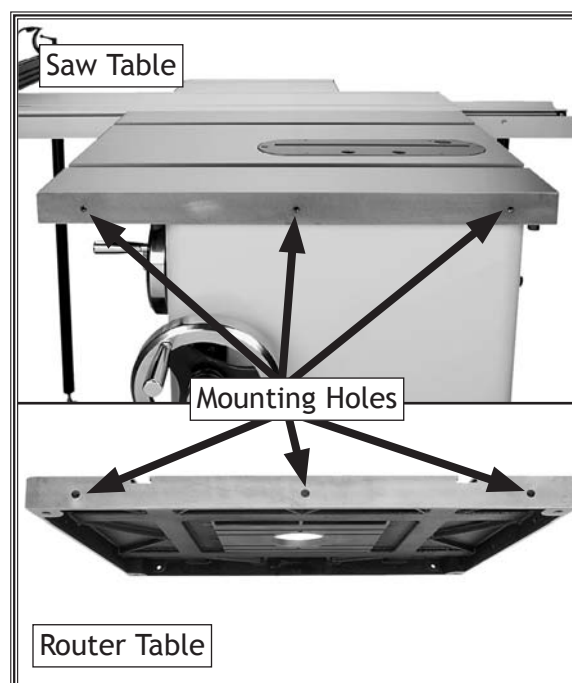4. Thread the support leg onto the stud on the bottom of the router table, as shown in **Figure 6**.

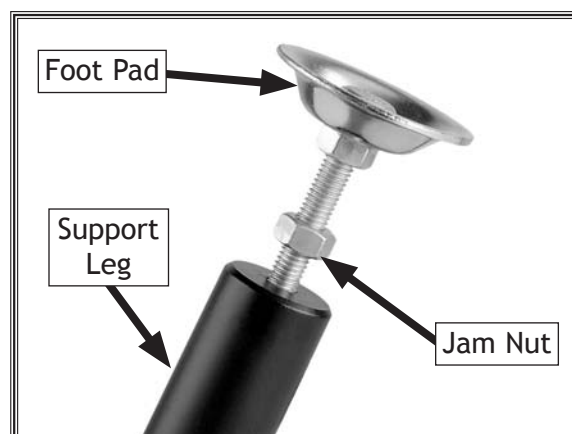
Figure 4. Mounting holes in saw and router tables.

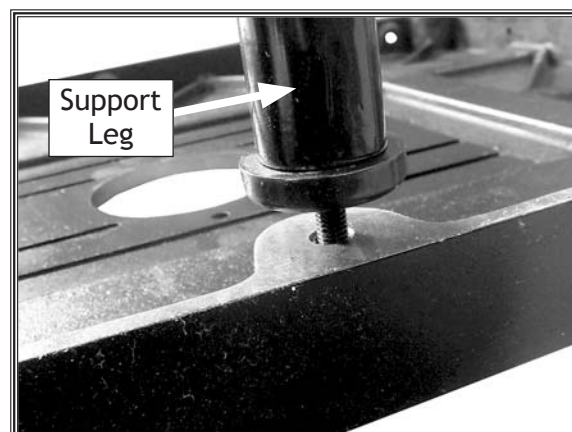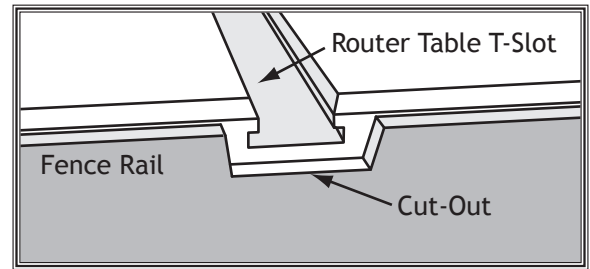**Figure 5.** Foot pad bolt threaded into the support leg.

Figure 6. Support leg threaded into the router table.

SETUP

SETUP

5. If you have long fence rails that will extend beyond the T-slots of the router table, you will have to modify the top of the rails. This entails making a cut-out that matches or exceeds the dimensions of the router table T-slot, as shown in the illustration in **Figure 7**.
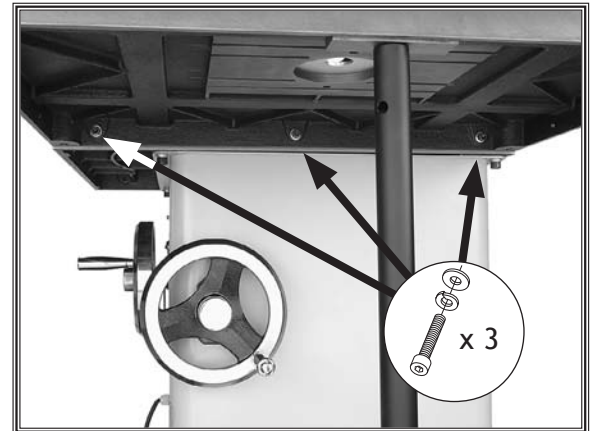
Also, drill mounting holes through the rails that match the holes in the side of the router table.

6. With the help of another person to hold the table and leg assembly, align the mounting holes in both tables and secure them together with the (3) M8-1.25 x 30mm cap screws, (3) 8mm lock washers, and (3) 8mm flat washers, as shown in **Figure 8**.

— If you have fence rails that extend beyond the saw table and across the router table, use the mounting holes you drilled in **Step 5** to fasten the rails to the router table.
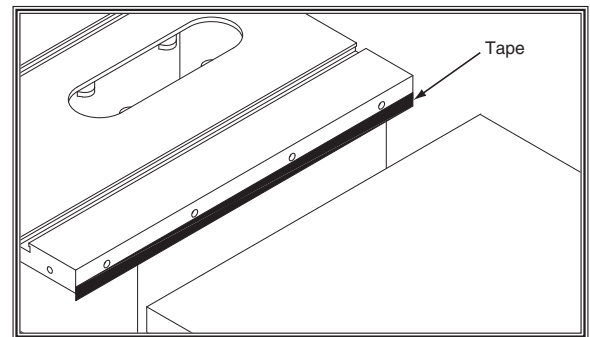
7. Place the straightedge across the saw table and router table to make sure that the combined table surface is flat.

— If the combined table surface is flat, continue with **Step 8**.

— If the outside edge of the router table tilts down, place strips of masking tape along the *bottom* edge of the saw table to shim the router table up and even with the saw table from side to side (see **Figure 9**).

— If the outside edge of the router table tilts up, place strips of masking tape along the *top* edge of the saw table to shim the router table down and even with the saw table from side to side (see **Figure 10**).

Note: *After reinstalling the router table, remove all excess masking tape with a razor blade.*
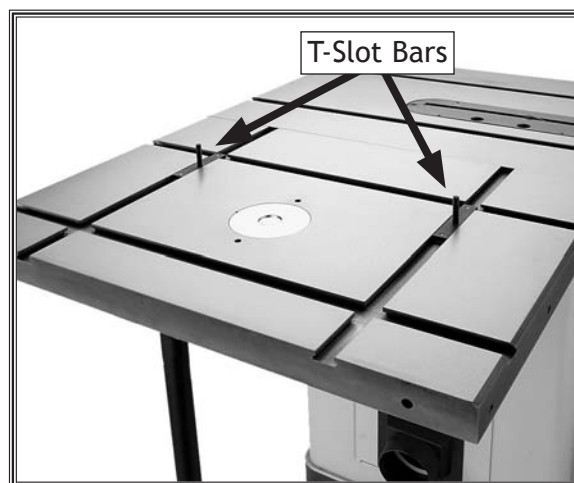
Figure 7. Illustrated example of a fence modification.

Router Table T-Slot

Fence Rail

Cut-Out

Figure 8. Router table attached to the table saw.

x 3

Figure 9. Using tape to shim the router table up.

Tape

Figure 10. Positioning the tape to shim the router table down.
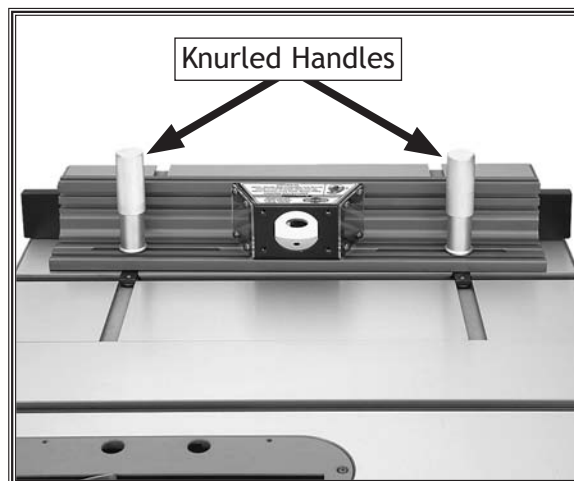
Tape

SETUP

8. When the saw and router tables are level with each other, rotate the foot pad assembly so that it sits firmly on the floor without changing the height of the router table. Tighten the jam nut of the foot pad assembly up to the leg bottom to secure the setting.

9. Slide the two T-slot bars into the T-slots of the router table (see **Figure 11**).

    Note: *The router table double-cross T-slots offer four different orientations for the router fence—choose the one that best suits your operation.*

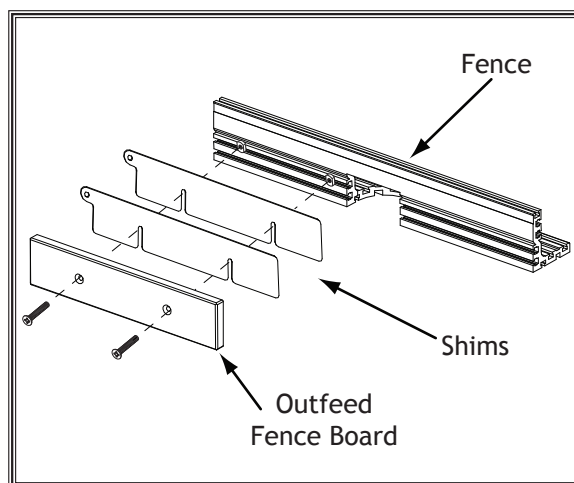**Figure 11.** T-slot bars installed for one of four orientations.

10. Place the fence assembly over the studs of the T-slot bars, then secure the fence in place by threading the knurled handles onto the studs, as shown in **Figure 12**.

Figure 12. Fence knurled handles installed.

Note: *The two fence board shims provided with your router table can be placed between the outfeed fence board (left) and the fence to offset the outfeed fence board for full edge routing (see the illustration in **Figure 13** and refer to **Edge Routing** on **Page 15** for additional details).*

With additional shop-made shims, the outfeed fence board can be offset up to approximately 4mm from the infeed board. If you require more offset, you can obtain longer M6-1 flat head screws to secure the outfeed fence board.
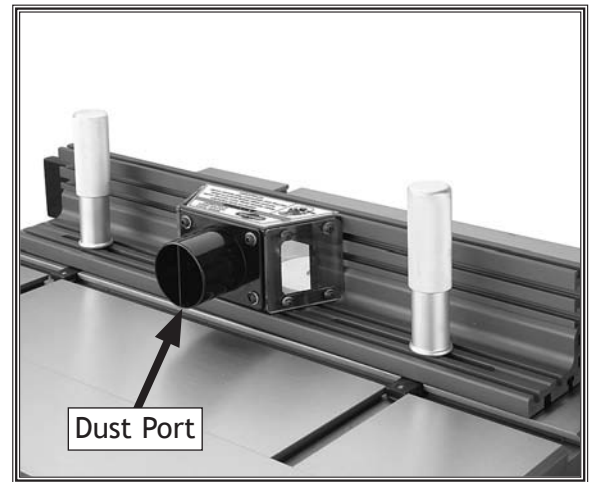

Figure 13. Shim installation for full edge routing.
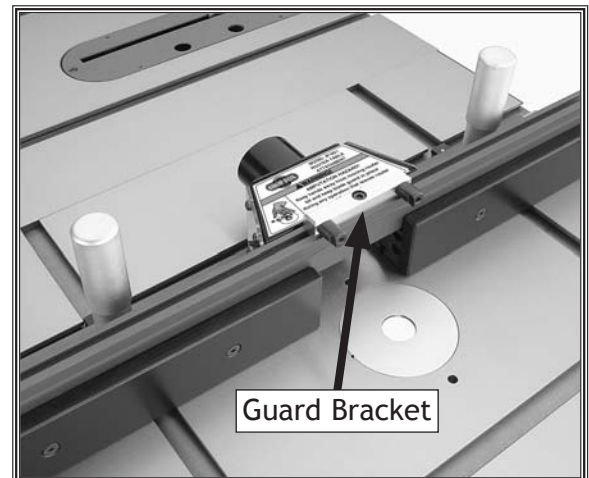
SETUP

> **⚠CAUTION**
>
> **DO NOT operate the attached router without an adequate dust collection system. Follow your router manufacturer's specifications for the required dust collection capacity. Failure to use a dust collection system can result in short and long-term respiratory illness.**

11. Attach the dust port to the back of the fence assembly with the (4) M6-1 x 10 cap screws and (4) 6mm flat washers, as shown in **Figure 14.**

Figure 14. Dust port installed.

12. Slide the attached square nut on the guard bracket into the top fence T-slot, center it with the dust hood and dust port, then tighten the cap screw to secure it in place, as shown in **Figure 15**.
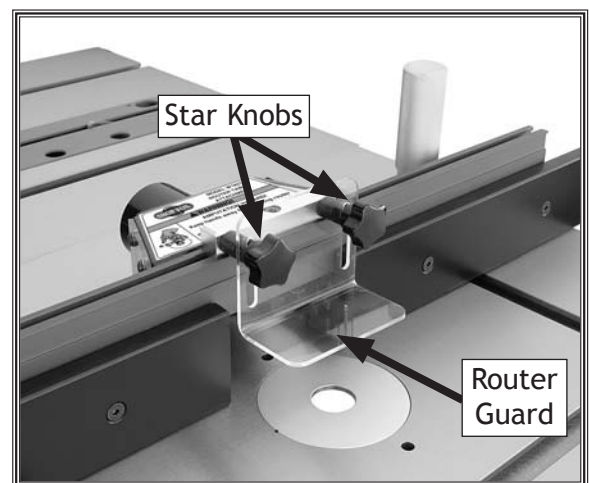

Figure 15. Guard bracket attached to the fence.

> **⚠CAUTION**
>
> **To reduce the risk of hand injury from accidental contact with the spinning router bit, with the exception of freehand routing, ALWAYS make sure the fence and router guard are properly positioned and secured before connecting the router to power.**

13. Attach the plastic router guard to the guard bracket with the (2) star knob bolts, as shown in **Figure 16**.

Figure 16. Router guard installed.

Router Installation

The Model W1821 will support a router with a base thickness between $^1/_4$" and $2^1/_4$".
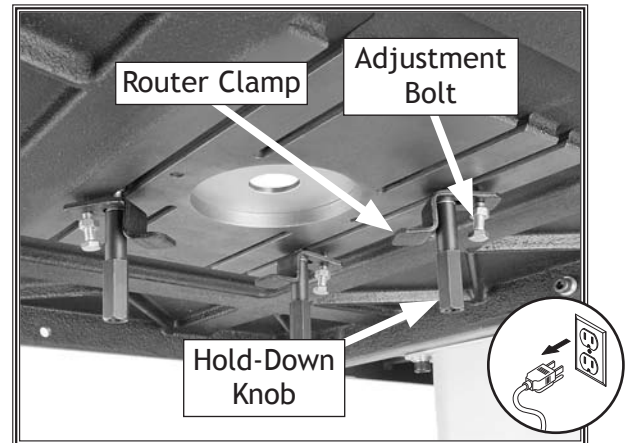
To install a router, do these steps:

1. DISCONNECT THE SAW AND ROUTER FROM POWER!

2. Slide three of the router hold-down assemblies into the T-slots underneath the router table so that they allow room for the router base, as shown in **Figure 17**.

   Note: *To properly position the hold-down clamp, balance the tightness of the hold-down knob and the adjustment bolt so that the clamp will allow room for the router base in the next step. If necessary, put the adjustment bolt jam nut on the other side of the clamp.*
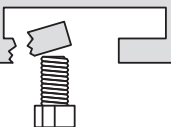

Figure 17. Router hold-down assembly controls.

⚠️WARNING

If the router unexpectedly moves or the router bit contacts the table insert or fence during operation, serious personal injury could result from flying debris. ALWAYS make that at least three router clamps are used and are applied to a flat surface of the router base before connecting the router to power.

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3. Slide the router base onto the three hold-down clamps, position them so that they secure the router bit in the center of the table opening, then tighten the hold-down knobs and adjustment bolts to secure the router in place (see **Figure 18**).

4. Install the remaining hold-down assembly to make sure the router stays firmly in place during operation.

NOTICE

To prevent damage to the router table T-slots, do not position the clamp adjustment bolts over the thin edge of the T-slots.

Figure 18. Router properly installed.

OPERATIONS

General

Your router will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate the router with this router table attachment. **If at any time you are experiencing difficulties performing any operation, stop using the machine!**
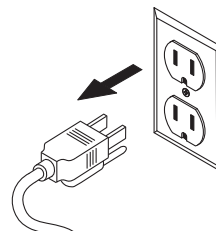
If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced router operator before performing any unfamiliar operations. **Above all, your safety should come first!**

⚠WARNING

READ and understand this entire instruction manual before using this machine. Serious personal injury may occur if safety and operational information is not understood and followed. DO NOT risk your safety by not reading!

⚠WARNING

DO NOT investigate problems or adjustments while the router is running. Wait until the router is turned *OFF*, unplugged and all working parts have come to a complete stop before proceeding!

⚠WARNING

Always wear safety glasses when operating this machine. Failure to comply may result in serious personal injury.

Operation Overview

This overview outlines you the basic process that happens during an operation with the router table attachment. Familiarize yourself with this process to better understand the remaining parts of the **Operation** section.

To complete a typical operation, the operator does the following:

1. Examines the workpiece to make sure it is suitable for cutting.

2. Adjusts the fence boards close to the bit for maximum workpiece support, and then secures the fence boards in place.

3. Adjusts the bit height for the desired cutting profile.

4. Adjusts the fence position to establish the depth of cut.

5. Wears safety glasses and a respirator, and locates push sticks if needed.

6. If using a reversible router, verifies that the direction of spindle rotation is correct, and then starts the router.

7. Holds the workpiece firmly and flatly against the fence, and then pushes the workpiece into the bit at a steady and controlled rate until the workpiece moves completely beyond it.

   Important: The operator is very careful to keep the workpiece firmly against the table and fence during the entire cut. For smaller workpieces or odd-shaped workpieces, a zero-clearance fence or jig is used.

8. Stops the router.

Workpiece Inspection

Some workpieces are not safe to cut or may require modification before routing. Before routing, inspect all workpieces for the following:

- **Material Type:** This router is intended for cutting natural and man-made wood products, laminate covered wood products, and some plastics. This machine is NOT designed to cut metal, glass, stone, tile, etc.

- **Foreign Objects:** Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While shaping, these objects can become dislodged and hit the operator, cause kickback, or break the bit, which might then fly apart. Always visually inspect your workpiece for these items. If they can't be removed, DO NOT cut the workpiece.

- **Large/Loose Knots:** Loose knots may dislodge during a cutting operation. Knots can cause kickback and machine damage. Choose workpieces that do not have large/loose knots or plan ahead to avoid shaping through them.

- **Wet or "Green" Stock:** Routing wood with a moisture content over 20% causes unnecessary wear on the cutters, increases the risk of kickback, and yields poor results.

- **Excessive Warping:** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and often unpredictable when being shaped. DO NOT process workpieces with these characteristics unless you properly square up the stock with a jointer and planer.

- **Minor Warping:** Workpieces with slight cupping can be safely supported if the cupped side is facing the table or the fence. A workpiece supported on the bowed side will rock during a cut and could cause kickback or severe injury.

OPERATIONS

Edge Jointing

Jointing the edge of a board involves using a straight cutting router bit to remove wood from the face of the board. The result is a perfectly flat and square edge.

To joint the edge of a workpiece, do these steps:

1. DISCONNECT ROUTER FROM POWER!

2. Secure a straight cutting bit into your router according to the router manufacturer's instructions.

3. Install the smallest table insert into the router table that still allows the router bit to freely rotate.

4. Raise the bit to a height slightly more than that of the workpiece, then rotate it by hand until the cutting flute is perpendicular to the fence boards.

5. Insert and secure shims between the outfeed fence board and the fence bracket that equal in thickness the amount of material you want to remove from the workpiece face (see the illustration in **Figure 19**).

6. Place a straightedge against the outfeed fence board, then adjust the fence assembly so that the straightedge is also against the bit flute, as illustrated in **Figure 19**.

7. Lock the fence assembly in place, tighten all knobs, connect the router to power, then perform the cut (see **Figure 20**).
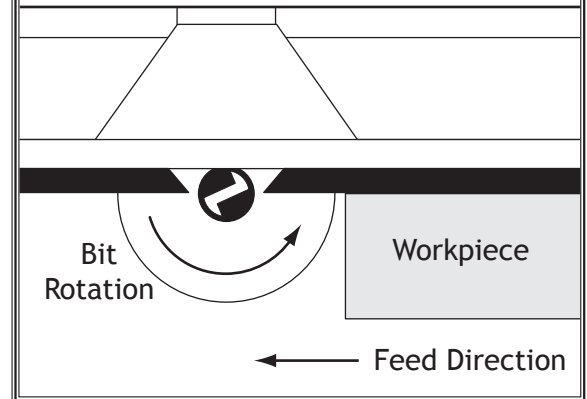

NOTICE

If you are using a mobile base with the table saw, use one of the options below when moving the saw and the router table attachment:

• Attach an extension to the mobile base that will provide support for the router table leg.
• Install a locking caster onto the bottom of the router table leg.
• Adjust the router table leg foot up, move the unit, then re-adjust the foot to provide proper support to the router table.

⚠WARNING

Always feed the workpiece against the router bit rotation direction, as illustrated below. Otherwise, the workpiece could be aggressively pulled from your hands, drawing them into the spinning cutter.
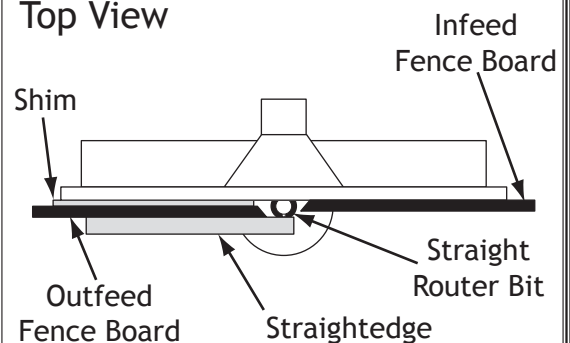

Bit Rotation

Workpiece

Feed Direction

Figure 19. Fence jointer setup (guard removed for clarity).

Top View

Shim

Infeed Fence Board

Outfeed Fence Board

Straightedge

Straight Router Bit

Top View
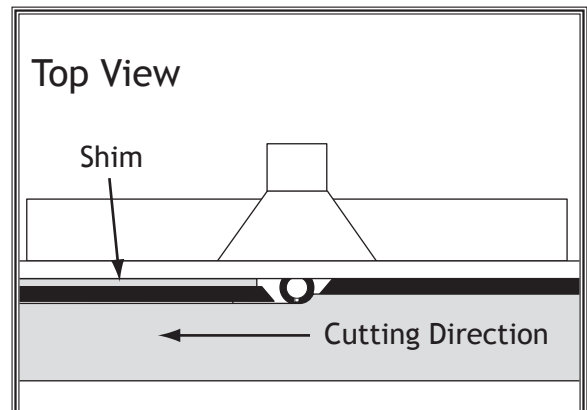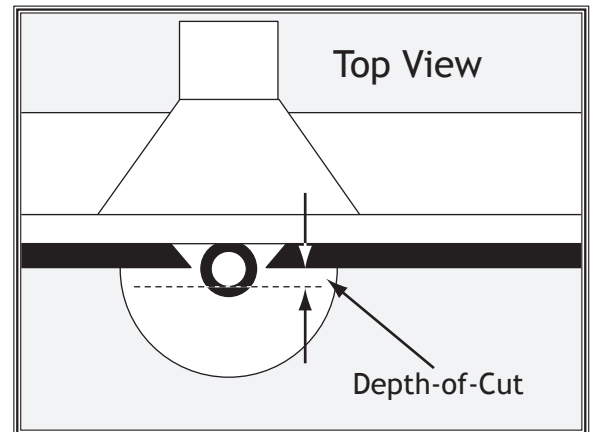
Shim

Cutting Direction

Figure 20. Edge jointing (guard removed for clarity).

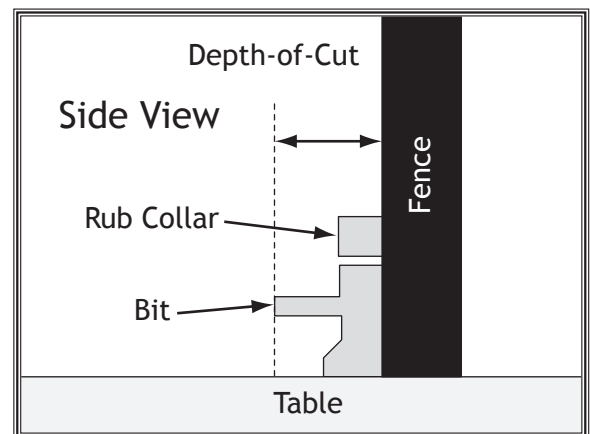OPERATIONS

Groove Cutting

Groove cutting produces a groove or bead into the face of the board.

To cut a groove into the face of the workpiece, do these steps:

1. DISCONNECT ROUTER FROM POWER!

2. Secure the bit into the router according to the router manufacturer's instructions.

3. Install the smallest table insert into the table that still allows the bit to freely rotate.

4. Make sure both fence boards are even with one another and secured to the fence assembly.

5. Raise the bit to the desired height, then adjust the fence assembly so that the fence boards are behind the bit the same distance as the desired depth-of-cut (see the illustrations in **Figures 21-22**).

6. Lock the fence assembly in place, tighten all knobs, connect the router to power, then perform the cut.

Figure 21. Groove cutting setup—top view (guard removed for clarity).

Figure 22. Groove cutting setup—side view (guard removed for clarity).

OPERATIONS

Routing Small Stock

Feeding small stock past the router bit is always dangerous. If you must route small stock, use a zero-clearance fence. This will provide greater protection for the operator, better workpiece support, and reduced tear out on narrow or fragile stock.

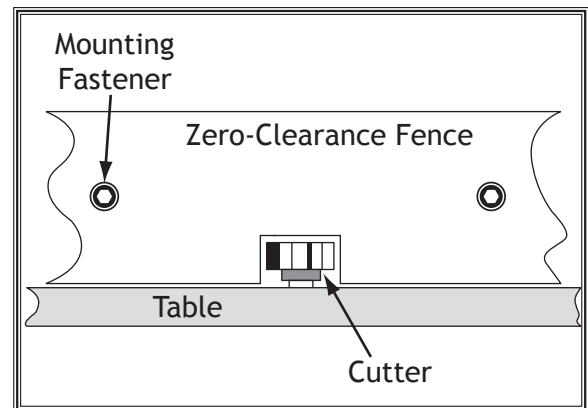**To make a zero-clearance fence, do these steps:**

1. DISCONNECT ROUTER FROM POWER!

2. Remove the fence boards from the fence assembly.

3. Select a piece of straight and smooth stock that is the same height and thickness as the fence boards and approximately 24" long.

4. Cut an outline of the spindle and cutter from the center of the stock selected in **Step 3**, as illustrated in **Figure 23**.

   Note: *Make the outline as close as possible to the cutter and spindle without interfering with rotation.*

5. Create countersunk mounting holes in the zero-clearance fence so that the screws and T-nuts from the split fence can be used to secure it to the fence assembly in the same manner.

6. Secure the zero-clearance fence to the fence assembly, check for proper clearance, connect the router to power, then run a test piece by the cutter to verify the results.

⚠CAUTION

ALWAYS use hold-downs or featherboards and push sticks when shaping small or narrow stock. These devices keep your hands away from the spinning cutter and sufficiently support the stock to allow a safe and effective cut, reducing the risk of personal injury.

Figure 23. Example of a zero-clearance fence.

OPERATIONS

Free-Hand Routing

Irregular or freehand routing, as illustrated in **Figure 24**, takes a high degree of skill and dexterity and is done without the protection and aid from the fence and guard. The most dangerous part of free-hand routing is beginning the cut, where the cutter first contacts the workpiece. Often the workpiece will tend to jerk or kickback, presenting an injury hazard to the operator.

To reduce this tendency, use a starting pin or block (see **Figures 24-25**). This will allow you to anchor and slowly pivot the workpiece into the cutter as the cut is started, making the operation more stable and safe.

With the fence assembly removed, you MUST use a router bit with a rub collar to guide the workpiece through the cut and limit the depth-of-cut. Also, use a jig or fixture to hold the workpiece so that your hands can be kept at a safe distance from the router bit while cutting.

If you are unfamiliar with free-hand routing or shaping, get assistance from an experienced woodworker, read books on routing and shaping, and start with a simple project.
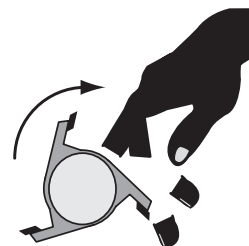
⚠WARNING

ALWAYS use an auxiliary jig and extreme care when free-hand routing that requires removal of the fence. Routing without the fence and the attached guard greatly increases the risk of accidental contact with the spinning cutter, causing serious personal injury.

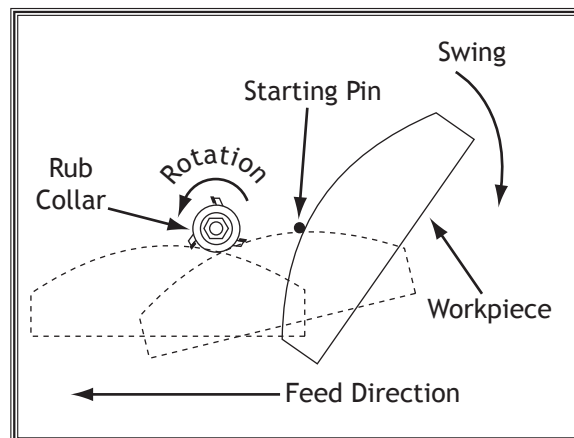**To free-hand route, do these steps:**

1. DISCONNECT ROUTER FROM POWER!

2. Fabricate a jig to use with the workpiece that will match the finish shape desired, then attach it to the workpiece (see **Figure 25** for an example).

   Note: *Make sure any fasteners used will not make contact with the router bit during the cutting operation. Glue can be used as an alternative.*

⚠WARNING

Free-hand or irregular routing greatly increases the chance that the operator may lose control of the workpiece, which could result in serious personal injury. Therefore, a starting pin or block and a custom guard or workpiece holding jig MUST be used.
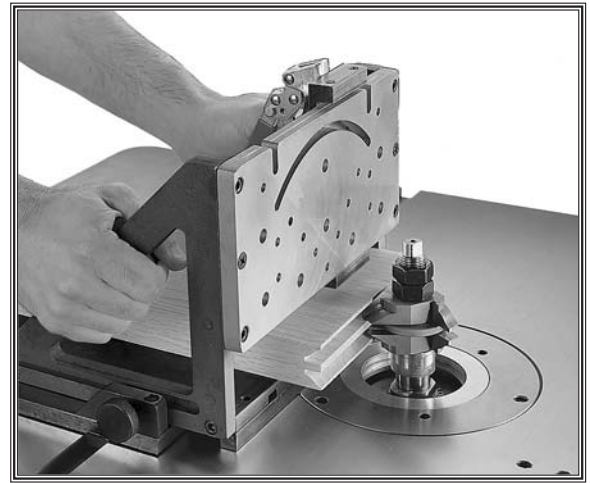

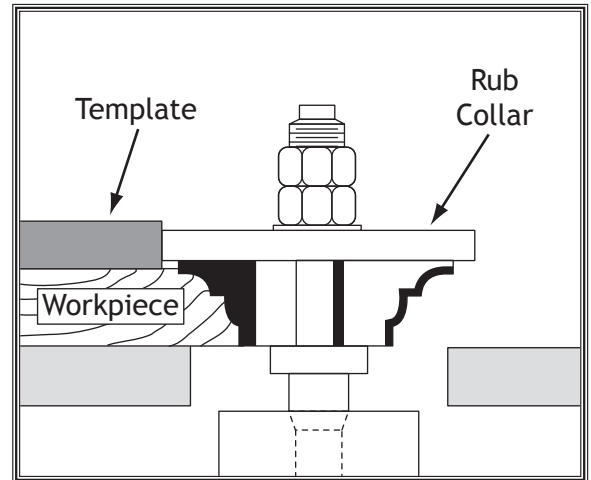**Figure 24.** Using a starting pin for freehand routing (custom guard not shown for clarity).

Figure 25. Example of using a jig with a starting block.

OPERATIONS

Tip: *As an alternative to fabricating a custom jig, use the Shop Fox Model W1500 Right Angle Jig, as shown in **Figure 26**.*

3. Remove the fence assembly from the table.

4. Fabricate and mount a custom guard over the bit that safely protects your hands from the spinning cutter.

5. Insert the starting pin in the best suited hole on the routing table or clamp a starting block to the table (see **Figure 25** on the previous page for an example).

6. Install a router bit with a rub collar as directed by the router manufacturer's instructions, then raise it to the desired height (see **Figure 27**).

7. Connect the router to power and turn it *ON*.

8. Rest the jig with the workpiece attached against the starting pin or block, then slowly pivot and feed it into the bit. After the cut is started, move the jig against the rub collar and away from the starting pin or block, as illustrated in **Figure 24** on the previous page.

Figure 26. Shop Fox Model W1500 Right Angle Jig.

Figure 27. Using a template and a rub collar for free-hand routing.

ACCESSORIES
Router Table Attachment Accessories

The following Router Table Attachment accessories may be available through your local Woodstock International Inc. Dealer. If you do not have a dealer in your area, these products are also available through online dealers. Please call or e-mail Woodstock International Inc. Customer Service to get a current listing of dealers at: 1-800-840-8420 or at sales@woodstockint.com.

30 Piece Carbide Tipped Router Bit Set
D3726—$^1/_4$" Shank
D3727—$^1/_2$" Shank
This 30 piece carbide tipped router bit set includes all of the most commonly used router bits conveniently labeled and displayed in a wooden case with see-through, touch-latch doors for easy access.

W1727—Shop Fox 1 HP Dust Collector
Specifications:
- Motor: 1 HP, 110V/220V, single phase, 9/4.5 amp draw
- 800 CFM air suction capacity
- 5.67" of static pressure
- One 4" intake hole
- 9" balanced steel, radial fin impeller
- 2.1 ft^3 bag capacity
- Base size w/casters: 15$^3/_4$" x 39$^3/_4$"
- 2.5 micron bag filtration
- 54$^1/_2$" height with bags inflated
- 59 lbs. approximate shipping weight

D2274—Shop Fox 5 Roller Stand
For greater work stability and support, this 5 Roller Stand features large diameter, ball bearing rollers mounted on a sturdy adjustable pedestal base. Stand adjusts in height from 26$^1/_2$" to 44", is all-steel construction, has 15$^7/_8$" wide ball bearing rollers, and has a 250 lb. capacity.

OPERATIONS

MAINTENANCE

General

Regular maintenance on your router table attachment will ensure its optimum performance. Make a habit of inspecting your machine each time you use it.

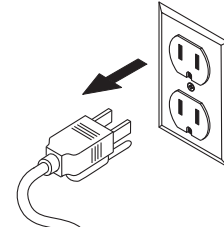**Check for the following conditions and repair or replace when necessary:**

- Loose mounting T-bolts or lock knobs.
- Worn router switch.
- Worn or damaged router cords and plugs.
- Any other condition that could hamper the safe operation of this router table attachment.

Cleaning & Protecting

Frequently blow-off sawdust with compressed air, then wipe away the remaining dust with a clean shop rag. This is especially important for the internal working parts of the fence assembly and the router. Dust build-up around the router is a sure way to decrease its life span.

The cast-iron router table can be kept rust-free with regular applications of products like SLIPIT®. For long term storage you may want to consider products like Boeshield T-9™.
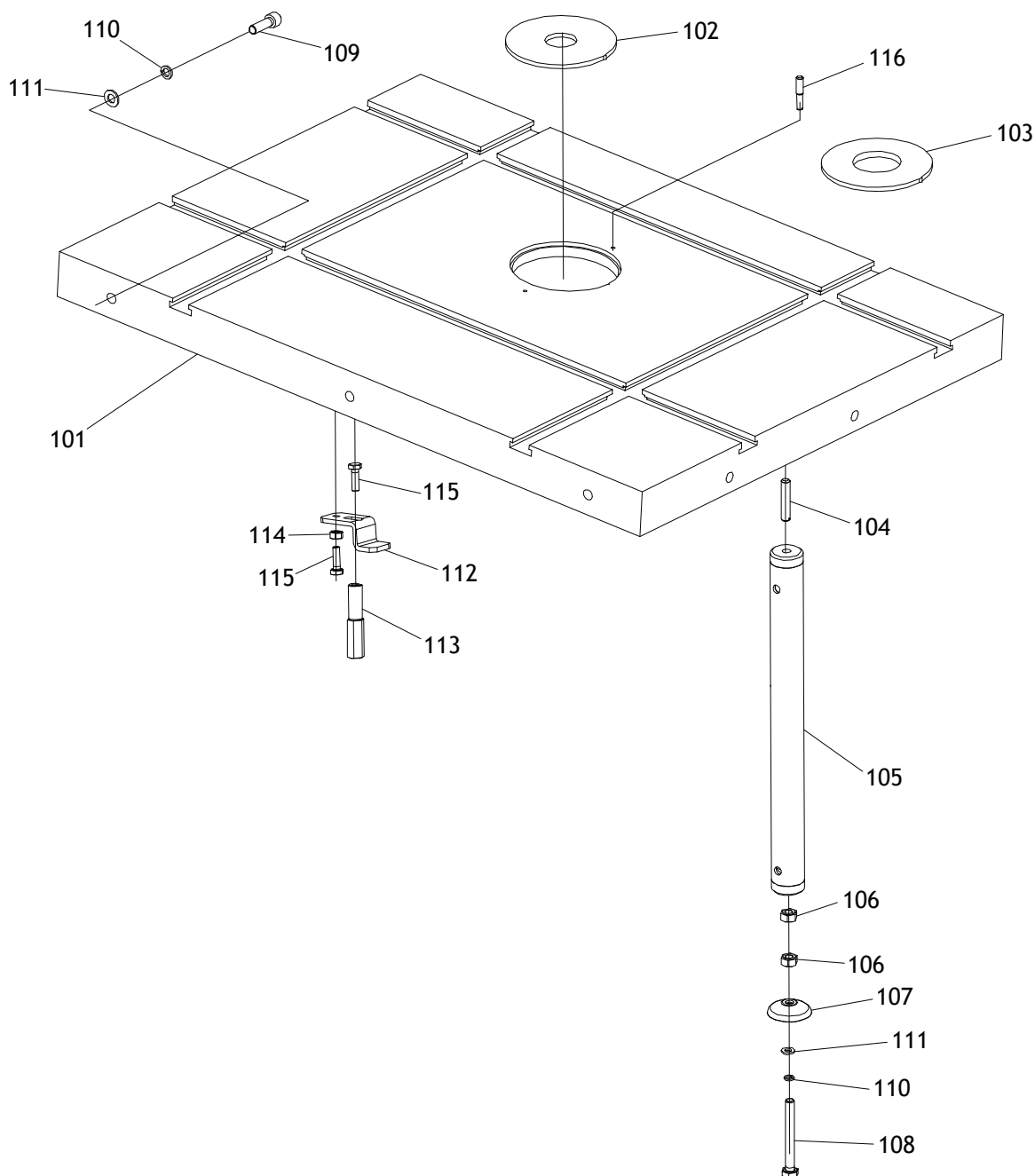
⚠WARNING

MAKE SURE that your router is unplugged during all maintenance procedures! If this warning is ignored, serious personal injury may occur.
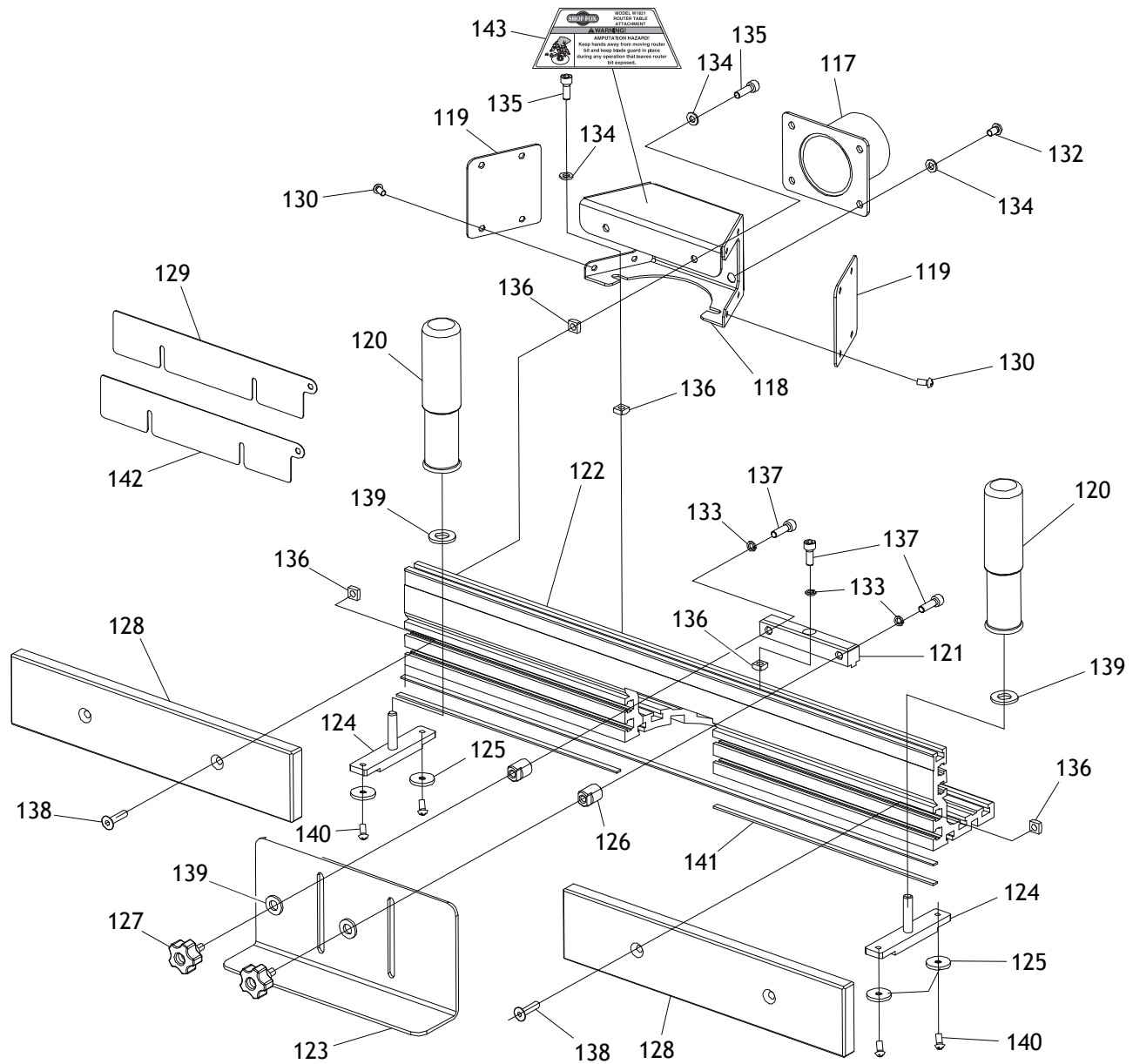
PARTS

Table

REF	PART #	DESCRIPTION
101	X1821101	ROUTER TABLE
102	X1821102	TABLE INSERT 1" ID
103	X1821103	TABLE INSERT 2-3/8" ID
104	X1821104	THREADED STUD M8-1.25 X 40
105	X1821105	SUPPORT LEG
106	XPN03M	HEX NUT M8-1.25
107	X1821107	FOOT PAD
108	XPB82M	HEX BOLT M8-1.25 X 80

REF	PART #	DESCRIPTION
109	XPCAP13M	CAP SCREW M8-1.25 X 30
110	XPLW04M	LOCK WASHER 8MM
111	XPW01M	FLAT WASHER 8MM
112	X1821112	ROUTER HOLD-DOWN
113	X1821113	HOLD-DOWN KNOB M6-1
114	XPN01M	HEX NUT M6-1
115	XPB08M	HEX BOLT M6-1 X 20
116	X1821116	STARTING PIN

PARTS

Fence

PARTS

REF	PART #	DESCRIPTION
117	X1821117	DUST PORT 2-1/2"
118	X1821118	DUST HOOD
119	X1821119	DUST HOOD SIDE COVER
120	X1821120	KNURLED HANDLE M8-1.25 X 25
121	X1821121	ROUTER GUARD BRACKET
122	X1821122	FENCE
123	X1821123	PLASTIC ROUTER GUARD
124	X1821124	T-SLOT BAR
125	X1821125	T-SLOT RING
126	X1821126	GUARD STAND-OFF
127	X1821127	STAR KNOB BOLT M6-1 X 15
128	X1821128	PHENOLIC FENCE BOARD
129	X1821129	FENCE BOARD SHIM 0.7MM

REF	PART #	DESCRIPTION
130	XPBHS06M	BUTTON HD CAP SCR M5-.8 X 12
132	XPBHS11M	BUTTON HD CAP SCR M6-1 X 10
133	XPLW03M	LOCK WASHER 6MM
134	XPW03M	FLAT WASHER 6MM
135	XPCAP25M	CAP SCREW M6-1 X 12
136	X1821136	SQUARE NUT M6-1
137	XPCAP01M	CAP SCREW M6-1 X 16
138	XPFH12M	FLAT HD SCR M6-1 X 25
139	X1821139	TEFLON FLAT WASHER 8MM
140	XPFH30M	FLAT HD SCR M5-.8 X 8
141	X1821141	PVC PAD
142	X1821142	FENCE BOARD SHIM 1.5MM
143	X1821143	INJURY HAZARD WARNING LABEL

SHOP FOX

Warranty Registration

Name_____

Street _____

City _____ State_____ Zip_____

Phone #_____ Email_____ Invoice #_____

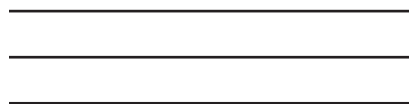Model #_____ Serial #_____ Dealer Name_____ Purchase Date_____

*The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.***

1. How did you learn about us?
   _____ Advertisement   _____ Friend   _____ Local Store
   _____ Mail Order Catalog   _____ Website   _____ Other:

2. How long have you been a woodworker/metalworker?
   _____ 0-2 Years   _____ 2-8 Years   _____ 8-20 Years   _____ 20+ Years

3. How many of your machines or tools are Shop Fox?
   _____ 0-2   _____ 3-5   _____ 6-9   _____ 10+

4. Do you think your machine represents a good value?   _____ Yes   _____ No

5. Would you recommend Shop Fox products to a friend?   _____ Yes   _____ No

6. What is your age group?
   _____ 20-29   _____ 30-39   _____ 40-49
   _____ 50-59   _____ 60-69   _____ 70+

7. What is your annual household income?
   _____ $20,000-$29,000   _____ $30,000-$39,000   _____ $40,000-$49,000
   _____ $50,000-$59,000   _____ $60,000-$69,000   _____ $70,000+

8. Which of the following magazines do you subscribe to?

   _____ Cabinet Maker   _____ Popular Mechanics   _____ Today's Homeowner
   _____ Family Handyman   _____ Popular Science   _____ Wood
   _____ Hand Loader   _____ Popular Woodworking   _____ Wooden Boat
   _____ Handy   _____ Practical Homeowner   _____ Woodshop News
   _____ Home Shop Machinist   _____ Precision Shooter   _____ Woodsmith
   _____ Journal of Light Cont.   _____ Projects in Metal   _____ Woodwork
   _____ Live Steam   _____ RC Modeler   _____ Woodworker West
   _____ Model Airplane News   _____ Rifle   _____ Woodworker's Journal
   _____ Modeltec   _____ Shop Notes   _____ Other:
   _____ Old House Journal   _____ Shotgun News

9. Comments:_____

_____

_____

_____

WOODSTOCK INTERNATIONAL INC.
P.O. BOX 2309
BELLINGHAM, WA 98227-2309

WARRANTY

Woodstock International, Inc. warrants all Shop Fox machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the Shop Fox machine or machine part, which in normal use has proven to be defective, provided that the original owner returns the product prepaid to a Shop Fox factory service center with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that Shop Fox machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products.

Every effort has been made to ensure that all Shop Fox machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.

WOODSTOCK INTERNATIONAL INC.

High Quality Machines and Tools

Woodstock International, Inc. carries thousands of products designed to meet the needs of today's woodworkers and metalworkers.
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PARROT VISE®

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STEELEX® FINE TOOLS

STEELEX PLUS®

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